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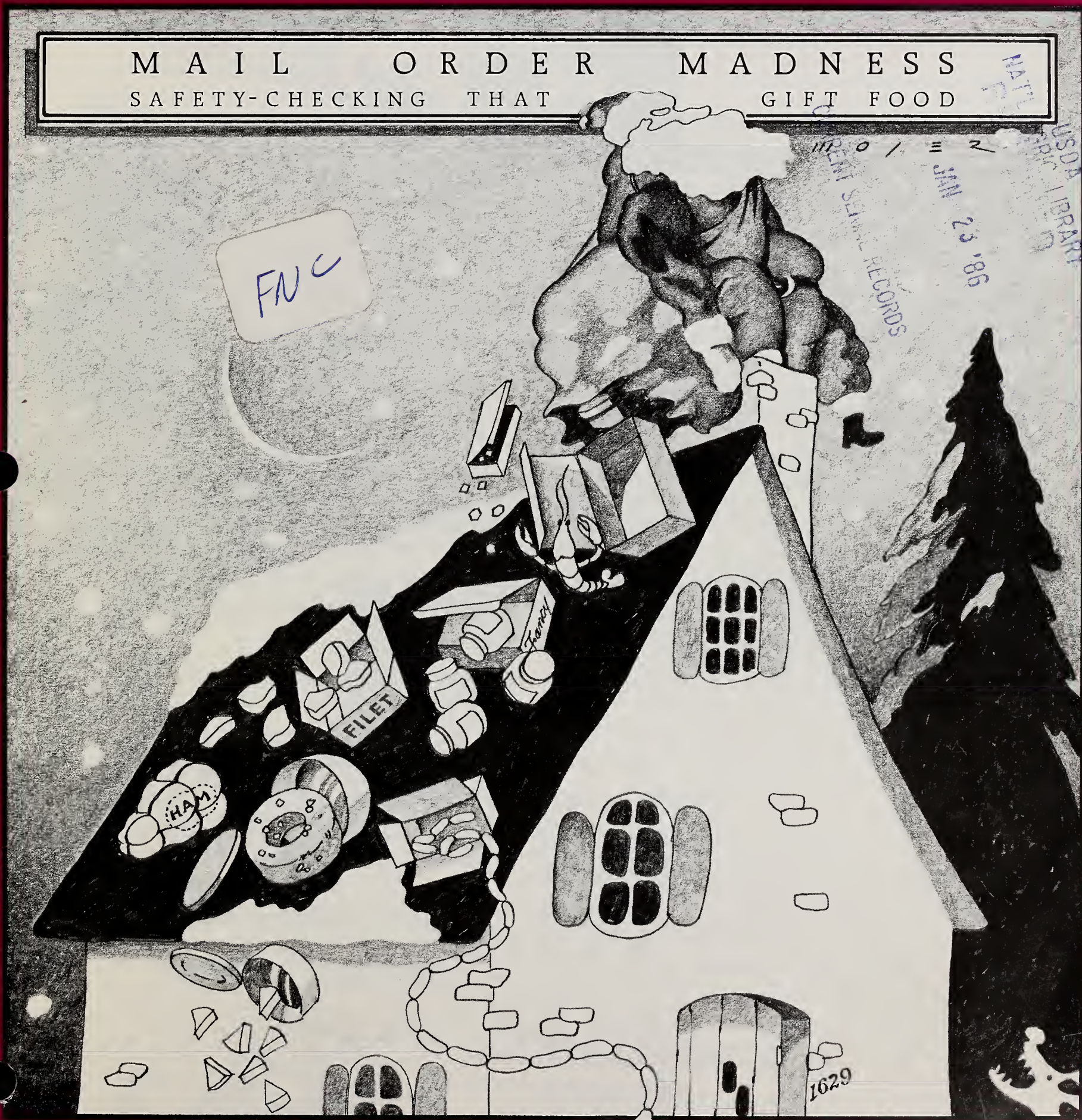
FOOD NEWS

FOR CONSUMERS

United States Department of Agriculture

Volume 2 Number 4
Holidays 1985

MAIL ORDER MADNESS
SAFETY-CHECKING THAT GIFT FOOD



*NEW — Can you solve the food poisoning "Case of the Chicken Casserole?"

STOP! MOUSE — Keeping out this uninvited "houseguest"

A Turkey First — Quick Microwave Thawing Chart

FOOD NEWS

FOR CONSUMERS

Holidays 1985
Vol. 2, No. 4

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PERSPECTIVES



Dear Reader:

As consumer advisor to the Secretary of Agriculture, it's my job to listen to and try to answer any number of questions. For the past year or so, two questions in particular have been echoing in my ears.

The first is "What is the Department doing to educate consumers about food safety?" With the recent press accounts of food poisoning outbreaks, this topic has become increasingly urgent.

And the second is "I read so many claims and counter-claims on diet and health — how do I know what to tell my readers?"

These are tough, legitimate concerns for food and science writers and other educators. Unfortunately, as you know, there are few easy answers. But much research has been done, and government policymakers are striving to make use of those findings in resolving these concerns.

To get that kind of information out to food and health writers, I worked cooperatively with the U.S. Food and Drug Administration this year to set up five food editors conferences across the country. These fact-filled, two-day conferences were held in Dallas, San Francisco, Chicago, Atlanta and New York City. (See "The Dallas Food Editors Conference," page 13.)

At each of these meetings, some 60 attendees came face-to-face with top USDA and FDA officials to discuss today's difficult food safety and nutrition issues. Topics? Irradiation, foodborne illnesses like salmonellosis, special health claims on food labels, drug and chemical residue detection and diet and health.

Conference planning takes tremendous effort, but I am convinced now, based on what I'm hearing from journalists, that it was worth every late hour.

Here are a few voices from the food desk:

- In Dallas, an attendee said, "It's vitally important that government take a positive stand on current issues and let the media know what that stance is."
- A San Francisco editor said, "The conference had special value to me because it gave me direct access to the top regulatory voices at USDA and FDA."

What better "press" could a tired conference giver have?

It hasn't stopped there either. People I met in one city or another continue to call for follow-up information on stories they're developing out of our information kits.

I hope these writers continue to call when they need information from USDA. I want to hear from you too.

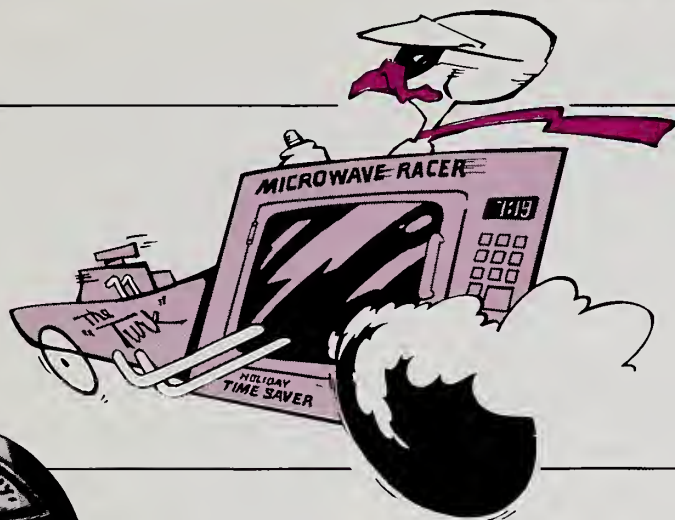
Sincerely,

Ann Collins Chadwick

ANN COLLINS CHADWICK, Director

Office of the Consumer Advisor

Phone: (202) 382-9681



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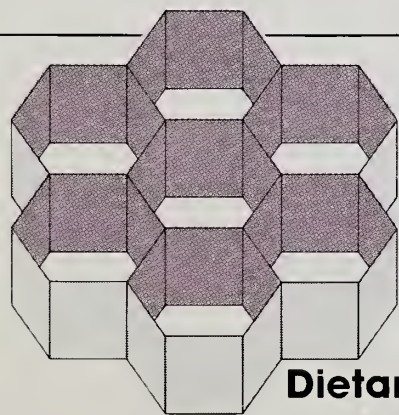
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Consumer Education

Hotline Calling — A Turkey Update

Turkey is good year-round, but it's an absolute *must* at least once over the holidays. And because over 40 percent of American homes have microwave ovens, turkey is much easier and quicker now to defrost — formerly the big time hurdle.

"This holiday season Americans will eat about 800 million pounds of turkey," says Annette Arbel of the National Turkey Federation, Reston, Va. "And by the end of this year, each of us will have eaten about 11½ pounds of turkey — 1 pound more than in 1980 and 3 more than in 1975."

What accounts for turkey's popularity? Certainly it's economical — on a national average, it costs only about 50¢ a serving. Turkey's a great natural health food too. It's nutritious, high-protein and low in calories and fat.

Want more information on how you can have a gracious, traditional turkey dinner and still beat the holiday clock? These answers to questions consumers are asking USDA's Meat and Poultry Hotline (800-535-4555) can help you safely and quickly prepare turkey in your high-tech kitchen.

Q: The microwave is often recommended for thawing turkey. Is it a safe thawing method?

A: Absolutely. But first check the manufacturer's instructions for the size turkey that will fit in your oven — normally under 16 pounds. Also, check the power setting to use in defrosting. This will be a low or "defrost" level. That's because a large, dense item like turkey defrosts slowly — at about 9-11 minutes per pound, and you don't want the outer sections to start cooking and dry out before the inner sections thaw.

Follow your oven guidebook closely

on the defrosting method. You may need to turn the bird upside down in the pan, rotate it in the oven and shield outer areas with foil. Total defrost time? Generally, it should take:

1-2 hours to defrost an 8-11 pound bird,
2-3 hours to defrost a 12-16 pound bird.

If you're hosting a bigger crowd than this will feed, use two medium-sized turkeys and microwave-defrost them separately.

When you remove the turkey from the oven, the inner cavity should still be cold and slightly icy. If you can't remove the giblet-and-neck pack yet, running cold water into the cavity for a few minutes can help you pry these pieces out.

CAUTION: *Never* thaw turkey on the kitchen counter. The outer layers thaw faster than inner portions, giving bacteria a chance to grow there to dangerous levels before the whole bird is thawed.

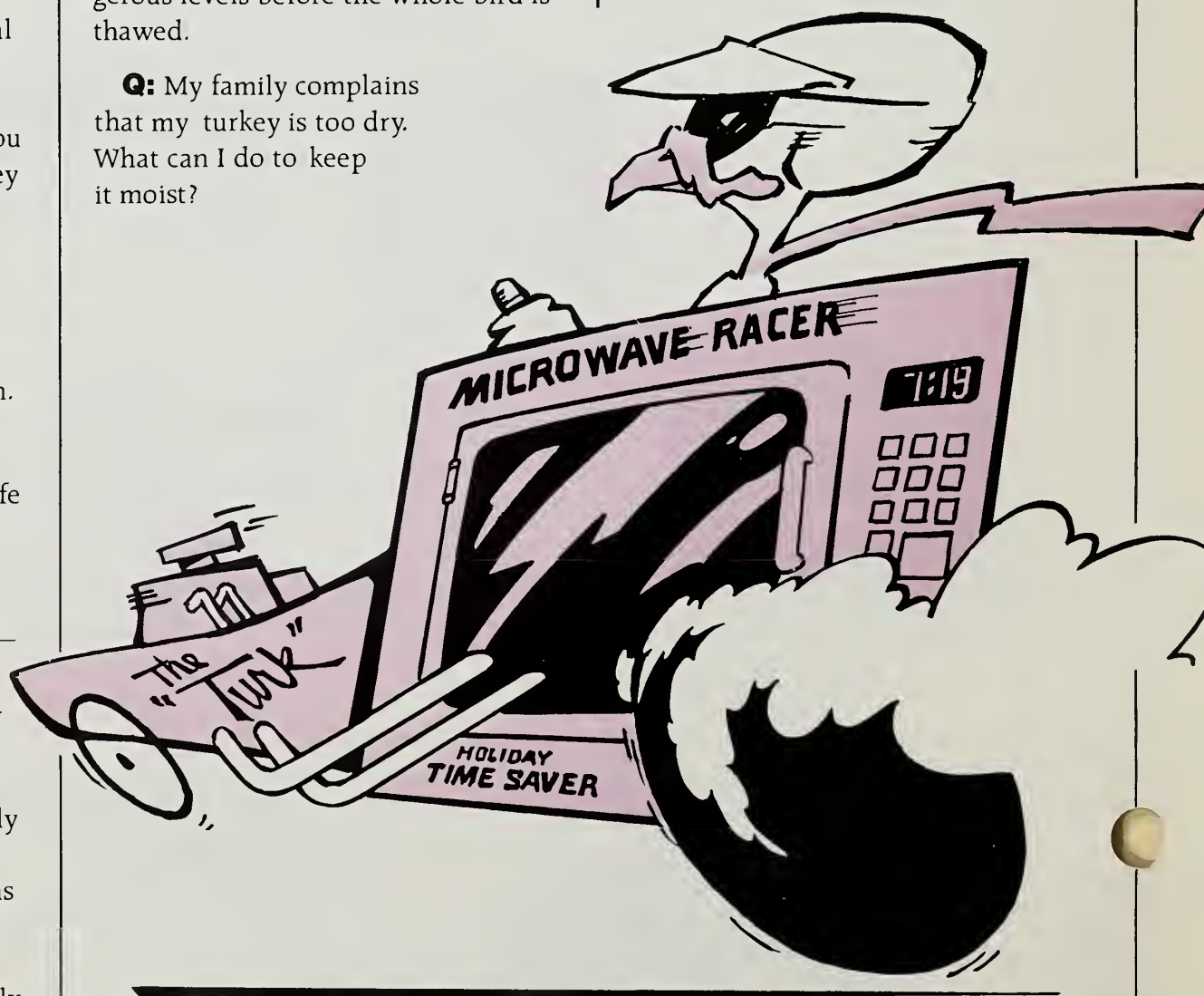
Q: My family complains that my turkey is too dry. What can I do to keep it moist?

A: Dry turkey is often caused by exposure of the bird to drying hot air in an oven set too high. Most cookbooks recommend a 325° setting for the several hours a turkey will be in a conventional oven. Other moisture-saving moves involve cooking the turkey covered. This keeps essential fluids inside the bird. Use the cover on your turkey pan or cover the bird with heavy-duty aluminum foil.

If you're microwaving the bird, using a cooking bag will give you a more moist product. The bag also prevents over-cooking of some spots and promotes even heat distribution. Carefully follow the instructions that come with the bag.

Q: A USDA publication mentioned you should let a cooked turkey stand for 20 minutes before carving it. Why? That's a tough time to hold back a ravenous crowd.

A: Circulate the cheese and crackers or vegetable tray yet again



while your turkey cools. Seriously, the food technologists explain that when meat is hot right out of the oven, the juices that normally hold it together are still bubbling. If you try to slice it then, the flesh may just fragment. Given time to cool, however, the juices will be re-absorbed, giving you the firm texture that produces picture-book slices.

With micro-waved turkey, of course, you *must* observe the recommended standing time (usually also 20 minutes) after you take it from the oven. Here the bird is actually completing cooking. The extra time allows heat to spread evenly throughout the meat, and the temperature of the bird rises to the finish point. When the standing time is over, you may carve.

Q: When I get tired of leftover turkey, I use it for a casserole. How long will my made-from-leftovers casserole keep?

A: If you're going to use leftover

turkey to make other dishes, it's best to do so within a day or two. A second-time-around casserole will keep, then, after baking, 1-2 days in the refrigerator; up to 6 months in the freezer. Label and date the casserole before freezing.

Q: I read about a machine that may be excellent in preventing leftover turkey from drying out in the freezer. According to the newspaper article, the machine vacuum seals food in storage bags. It also mentioned that this process doubles the period frozen food stays at top eating quality. Can you comment?

A: Vacuum-freezing, long used commercially, is now available to the home cook in the form of a vacuum and heat-sealing device — complete with special plastic bags and a vacuum hose that "sucks out" air. Prices vary, but most of these devices run about \$50.

While it's true that removing the air

(oxygen is a culprit in loss of food quality) does lengthen a food's quality life, you can also protect your frozen food using equipment you already have. Recommendations? Store your turkey in smaller portions — this promotes quick, safe freezing. And you can manually "press" excess air out of regular freezer bags before you seal them. Just leave about ½ inch at the top of the bag so that when the frozen food expands, it doesn't burst the bag.

Taking these few extra steps should give you properly packaged frozen turkey that will stay at peak appeal with no freezer-burn if used within a month or so.

For answers on other turkey questions, call USDA's toll-free hotline (800-535-4555). The hotline is staffed weekdays, 10 a.m. to 4 p.m. Eastern Time. You may also write for a free copy of TALKING ABOUT TURKEY to: USDA-FSIS Public Awareness, Rm. 1165 South Building, Washington, D.C. 20250.
—Irene Goins

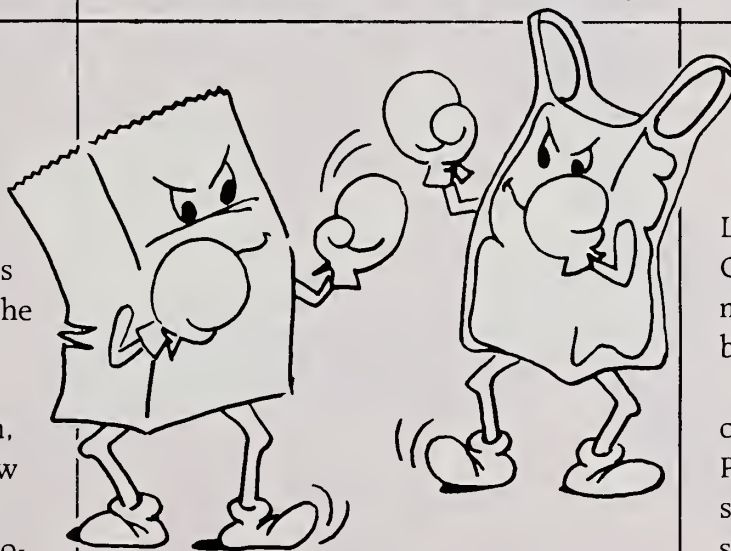
FOOD NEWS Trivia Quiz #1

The Supermarket Battle of the Bags

Q: What do you think? After over 100 years of faithful service, has the brown paper grocery bag gone the way of the dinosaur? Will the over-the-arm plastic bag replace it?

A: Pro-Brown Bag. Dave Carleton, of the American Paper Institute, New York, N.Y., says "Don't bet on it." According to Carleton, the common grocery bag or kraft sack (the name comes from a German word meaning "strength") is here to stay.

Carleton said that while plastic has made some gains, and is popular with consumers who walk to the local market, the old reliable kraft paper sack is still king. He cites a study done by Case and Company, a Stamford, Conn., research firm, to show that plastic bags would have to cost 30% less than



paper to offset paper's advantage. Why? Because paper bags are easier to pack and hold up to 25% more than plastic containers. Paper bags don't flop over, spilling groceries either.

Plus, the paper bag is a biodegradable, "All-American" product, made entirely of American raw materials. In short, brown bags now have about 97% of the supermarket trade — that involves over one-half billion dollars.

"We think we have an economic advantage and consumer preference," Carleton concluded.

Pro-Plastic Bag. On the other "arm," Leon Phillips — of Sonoco Products Company, Hartsville, S.C., a plastic bag maker — says it's just a matter of time before the paper bag is passé.

Phillips said plastic is rapidly taking over paper's once-exclusive domain. Plastic bags are re-usable, water-proof, stronger, lighter, cheaper, easier to store and handle and excellent for advertising. They serve as a slick, white billboard for ads too. Phillips said paper also takes eight times more warehouse and transport space than plastic. The plastic pluses, he feels, will earn plastic bags about 25% of the market by the end of 1985. He points to Los Angeles, Cal., as proof that plastics have arrived. Plastic bags currently have about 70% of the L.A. market.
—Richard Bryant

Special Feature

Is It Still as Good as It Looked in the Catalogue??

Mail-order food is a booming business today with sales estimated at about \$1 billion. And 75 percent of this activity takes place between Thanksgiving and Christmas!

Still, despite the tremendous volume and some frayed nerves among Santa's helpers, mail-order foods enjoy an excellent safety record.

Why? Because they must. If these shippers didn't have food safety down to a science, they'd soon be out of business.

But far from folding, direct marketing of foods, especially gourmet items, continues to grow. Total dollar sales jumped another 10 percent in 1984. Yuppies, food marketers say, are prime purchasers of gift foods from the some 400 food catalogues now available. Even top-of-the-line marketers like Neiman-Marcus feature food prominently in their holiday catalogues.

Says Bill Williams, senior vice-president in Neiman's mail order division in Dallas, "Food is our biggest item in catalogue sales. It makes the perfect gift, you know. The person you send food to enjoys it twice — first in receiving a lovely gift and secondly by serving and sharing it with family and friends."

While a fast-growing industry, mail order food is just a small part of the total mail order business. Mail ordering, actually, is so well established that it's had its own trade organization, the Direct Marketing Association (DMA), since 1917. Service-conscious, DMA runs a write-in action line to track consumer complaints. (See "Something Wrong?" page 9.)

What kind of complaints do they get? Considering that mail orders for

all goods totaled \$44.4 billion in 1983, the 12,000 complaints DMA recorded that year seems low. DMA ethics director Jeanne Ross feels "only a small percent of these problems are food-related, and they normally concern late delivery, incorrect or spoiled merchandise. And problems can usually be solved easily. Most firms have toll-free numbers and are willing to make adjustments."

Complaint figures may be this low because most mail order firms use quick delivery services — either private couriers or the U.S. mail — for highly perishable foods.

The Postal Service is working hard to speed deliveries, according to their consumer advocate Ann Robinson. "We work with mailers [the companies] to pinpoint and overcome problems. For example, the mailer may need to get perishable deliveries to the Post Office at a certain time to synchronize with our dispatch schedules."

But there will always be some hazards in mailing food — breakage, spillage, failure of cold-packing — so no mailing procedure is perfect.

How can you protect yourself from unsafe food? Ann Robinson advises, "You can help assure proper delivery by providing a complete mailing address, and by ensuring that someone is available to receive perishable foods. Otherwise, the package could *wilt* on your doorstep or at the Post Office, waiting to be retrieved."

And, overall, it's imperative to know enough about perishable mail-order foods to develop some mental checklists for how both food and packaging should look when they arrive. This is especially true for

meat, poultry and fish, which must be carefully handled to avoid spoilage and food poisoning.

A Safety Checklist for Mail-Order Foods

Turkey

Smoked, cured, cooked turkey, a perennial favorite, is usually vacuum-packaged and shipped ready to eat. Vacuum-packed foods come in soft plastic packages. Removing air from the packet keeps the meat moist; without air, liquids can't evaporate.

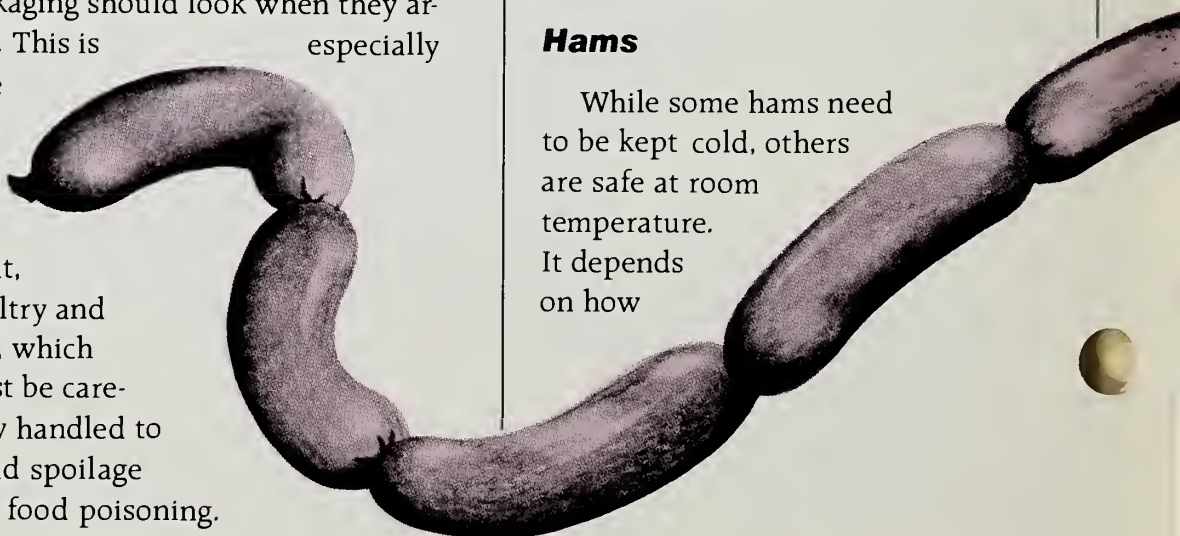
Some firms ship smoked turkey *frozen*; others ship them "*hard-cold*" (nearly frozen). When the turkey arrives, it should still be frozen or cold to the touch. If it's still frozen, you can store it in the freezer for about 6 months without quality loss. Otherwise, refrigerate for use within 7 days. (For more information on cold storage of meat and poultry, you can order *The Safe Food Book*. See "Free for the Asking," page 9.)

Wild Turkeys are usually fresh-frozen for shipping, and should arrive cold. Handle them like any fresh, meat-counter bird. Keep frozen. Thaw before cooking — thaw overnight in the refrigerator or defrost in the microwave just before cooking. Then clean, cook and serve hot. (For more about handling raw turkey, order *Talking About Turkey*, listed in "Free for the Asking.")

• **TURKEY TROUBLE** — Don't eat any turkey with an off-odor. Bacterial buildup creates odors — sometimes like an "old dishrag" — and may make the bird slimy or slippery. (See "Something Wrong?" page 9, for tips on handling spoiled food.)

Hams

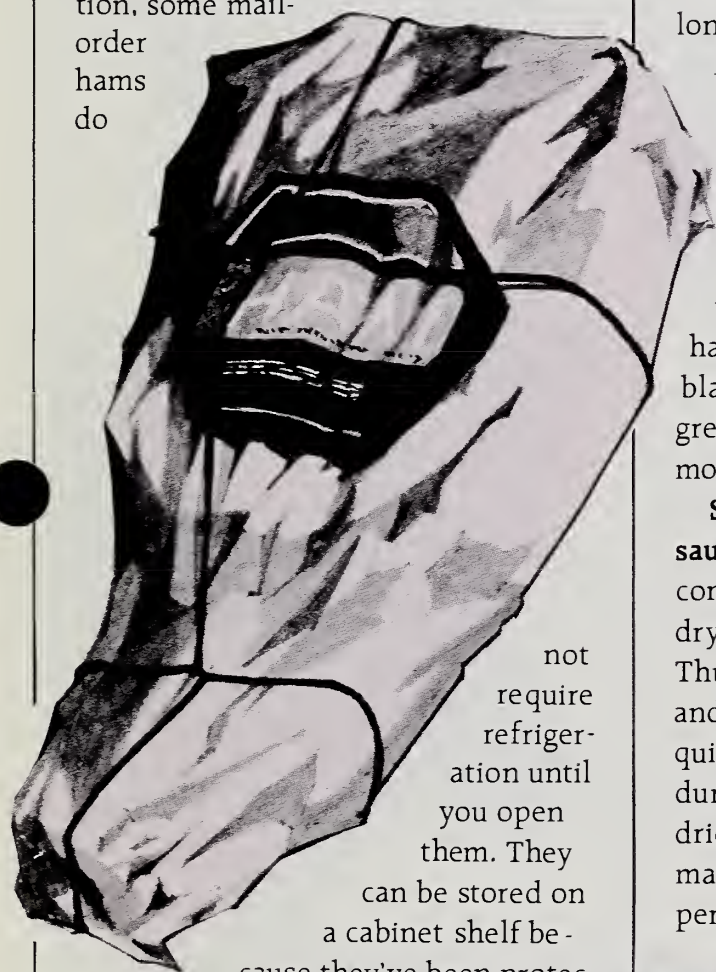
While some hams need to be kept cold, others are safe at room temperature. It depends on how



they were processed. Check the label for handling directions.

Country Hams — These dried-and-cured hams can safely be mailed unrefrigerated in paper or cloth wrap. Their saltiness and dryness make it safe to keep them for months without refrigeration. Nevertheless, refrigeration after slicing extends the country ham's quality life and retards the development of rancidity.

Canned Hams — While most hams you buy in the store need refrigeration, some mail-order hams do



not require refrigeration until you open them. They

can be stored on a cabinet shelf because they've been protectively heat processed in the can at high temperatures. Once open, though, they must be refrigerated.

• **HAM HAZARDS** — If a ham labeled "KEEP REFRIGERATED" doesn't arrive cold, send it back (see "Something Wrong?" p. 9.) And, with canned ham, examine the can to make sure it's not swollen or dented and that the seams are tight. Swelling signifies TROUBLE — possibly botulism.

So, don't even open it. Refrigerate it, and notify USDA's toll-free Meat and Poultry Hotline, 800-535-4555.

Sausages

Proper mailing and storage temperatures vary depending on how the sausage is made.

Dry, fermented sausages like pepperoni and the hard salamis don't require refrigeration. They've been cured, and fermented and dried sometimes for weeks — which makes them long-lasting at room temperature.

After a few months, however, the fat can become rancid and the sausages could develop harmful black or green molds.

Semi-dry sausages — In contrast, some semi-dry sausages — like certain Thuringer, summer sausage, and Lebanon bologna — require refrigeration because during processing they aren't dried or acidified enough to make them safe at room temperatures. Check the label.

• SAUSAGE TROUBLE

SPOTS: If the label says "KEEP REFRIGERATED," be sure the sausages are cold on arrival. While some sausages have a characteristic harmless white mold on the casing, green, gray or black mold should not be eaten.

Beef, Pork and Lamb — Steaks, Chops, and Roasts.

If shipped frozen, they should arrive frozen. The dry ice may have evaporated, but if the meat is still

frozen, it's okay. Even if it's started a slow thaw, the meat can be safely refrozen as long as it's still hard at the center.

Freeze these items until you're ready to cook. Then microwave-defrost, or allow a day or two, depending on size, for them to defrost in the refrigerator. Here's a thawing guide from Omaha Steaks International:

THAW IN THE REFRIGERATOR

Large roasts	(over 4 lbs.) — allow 4-7 hours/ pound
Small roasts	(4 lbs. or less) — allow 3-5 hours/ pound
1" thick steaks or chops	allow 8-12 hours

Notice a color variation in some mail-order red meats? Don't be alarmed. Red meat that's been vacuum-packed may look maroon. That's because vacuum packing removes the oxygen that gives fresh meat that bright red tint.

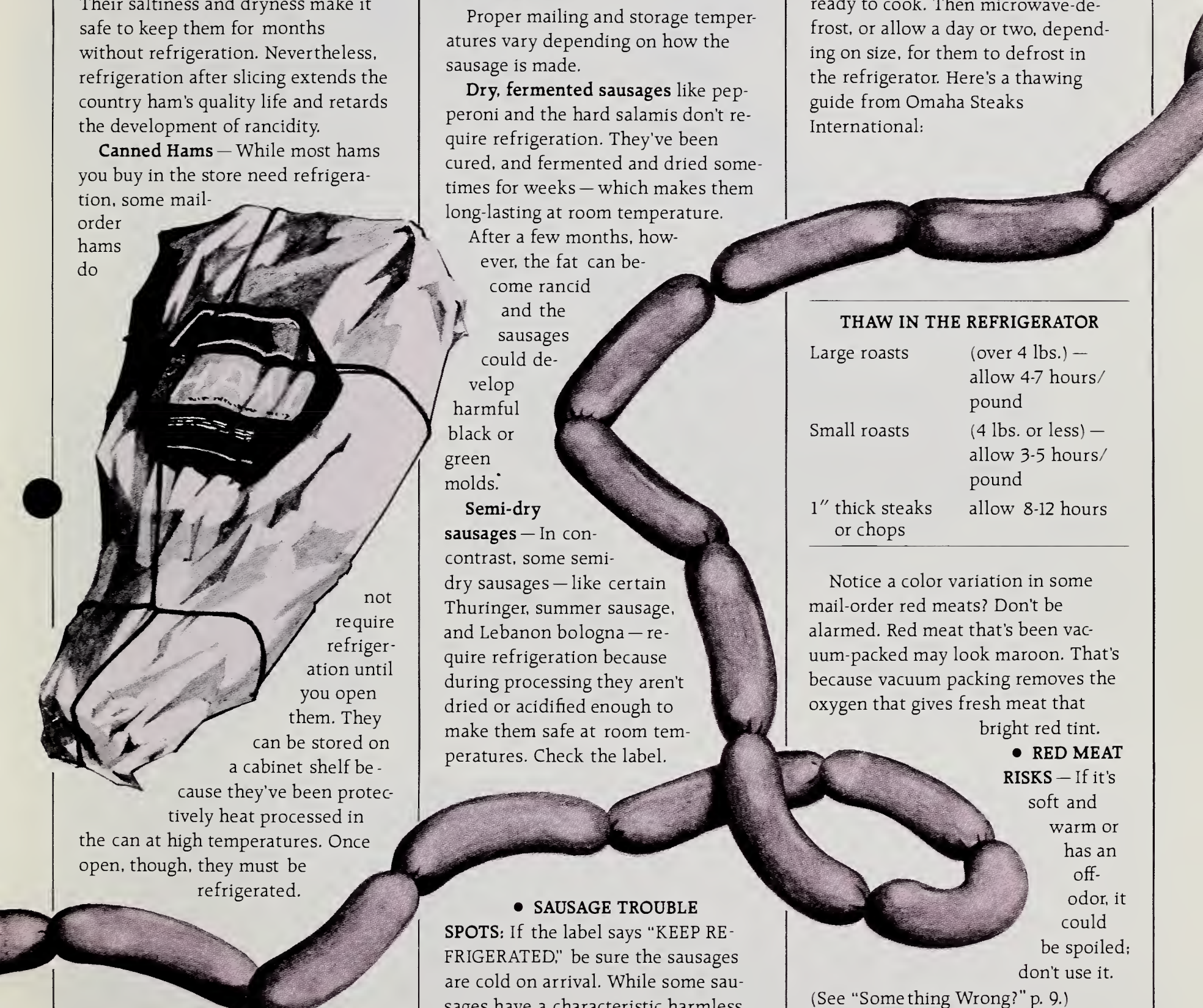
• RED MEAT

RISKS — If it's soft and warm or has an off-odor, it could be spoiled; don't use it.

(See "Something Wrong?" p. 9.)

Seafood

Lobster, fresh and smoked salmon and crab entrees are popular holiday gifts. Because seafood is highly perishable, most of it is shipped frozen. However a few companies ship some items fresh or even **live** via speedy



services that deliver in under 48 hours.

Live lobsters??? Yes. Live lobsters are packed in seaweed in specially insulated containers. ALERTE Says George Berkowitz, Boston's Legal Seafood, "If a live, shipped lobster looks 'sleepy' (if it's barely moving), we recommend you cook it immediately. I'd advise, too, that you check *any* lobster (sleepy or not) after you cook it. The give-away is the tail. If the tail stays coiled after cooking, it's okay. Don't eat a lobster with a limp tail. The meat could be bad."

Legal Seafood also flash-freezes its Louisiana shrimp and fresh, smoked salmon. They pack these delicacies in insulated foam containers with cold packs. Over the 48-hour trip, the ice packs will melt almost entirely, but the seafood itself should remain frozen.

Fresh caviar (dare we dream such dreams?) "is perhaps the most perishable of all foods because it's not salted or pasteurized" says Marvin Goldsmith of New York City's Maison Glass (a gourmet food store and mail order service). "We ship ours with ice packs. To assure overnight delivery, our mail order department picks the best courier for each location — be it Oshkosh, Wisconsin or Vineland, New Jersey."

In contrast, processed caviar is shelf-stable and not likely to pose problems except for broken packages.

• **CAVIAR CAVEAT** — If **fresh** caviar is not cold on arrival, it might be spoiled. Don't taste it! See "Something Wrong?" p. 9.

Game Birds

Partridges, small birds, are frozen raw and shipped with ice packs or dry ice for overnight delivery. Just take the bird out of the vacuum pack-

age and bake it with your favorite sauce. Or you can freeze

the bird and bake it later. Store refrigerated

no more than a day or two before cooking;

freeze for up to 6 months without quality loss.

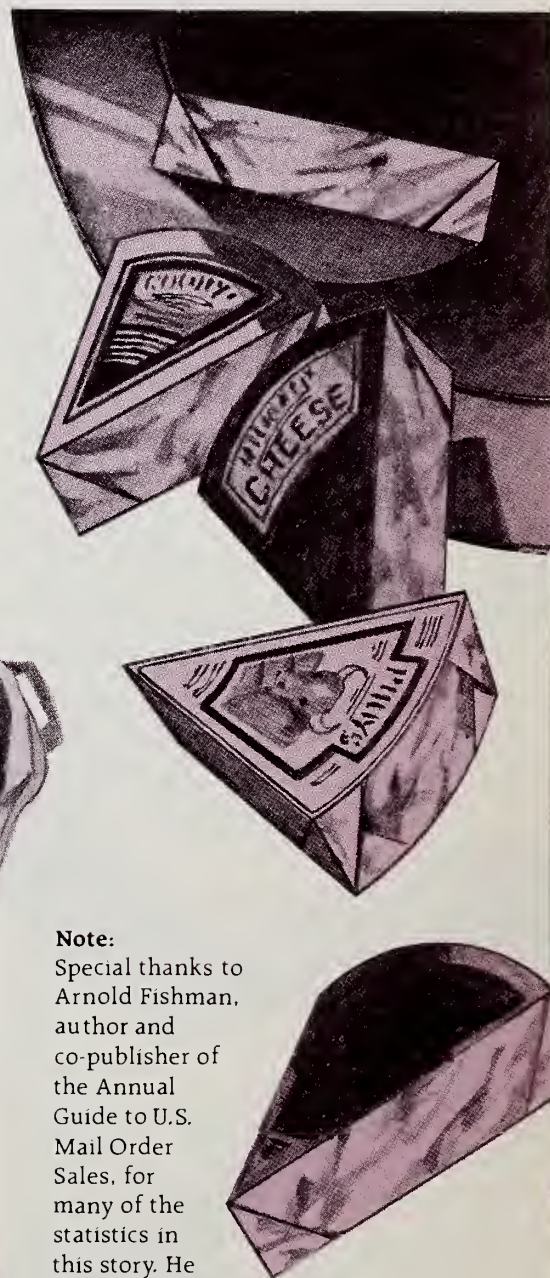
Pheasants and other delicacies like grouse, quail, squab, and duck also "fly" on magic sleighs. Shippers use plastic vacuum packaging on the frozen birds for overnight delivery.

• **GAMEY GAME BIRDS?** Potential hazards are similar to those that can occur with turkeys. (See "TURKEY TROUBLES," page 6.)

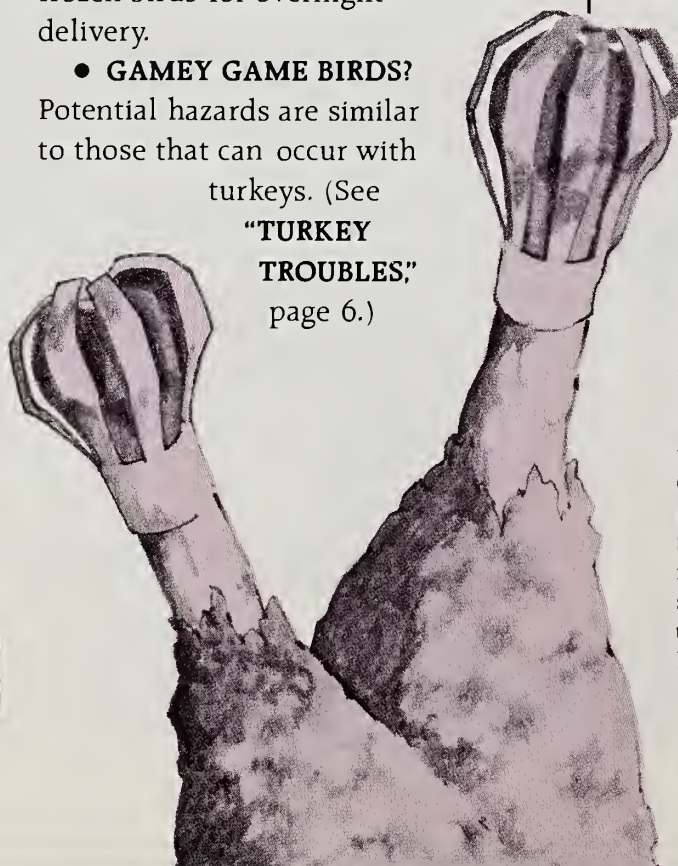
Cheese

Cheddar is the most-ordered cheese, with Swiss and brie the runners-up. Why the cheddar preference? Probably because it's hardy winter fare that shows little deterioration in cold weather. You occasionally see an overheated cheddar "weep," with the butterfat separating and running. But this is no health threat.

In contrast, brie is delicate and some companies limit delivery to the winter. By mailing brie "green before it ripens," says Goldsmith of Maison Glass, "we can safely ship cold brie without ice via speedy delivery services." Refrigerate it, of course, when you get it.



Note: Special thanks to Arnold Fishman, author and co-publisher of the Annual Guide to U.S. Mail Order Sales, for many of the statistics in this story. He heads Marketing Logistics in Lincolnshire, Ill.





Fruits

A gift of fruit need not be a one-time thing. There are services that will deliver year-round to fortunate giftees — fancy pears (from Oregon) in December or Gala apples (from New Zealand) in May, for example. Protecting these out-of-season delicacies are boxes with individual sections for each peach, plum or orange.

Not only do fruit firms use special courier services, but at least one — Harry and David of Medford, Ore. — first delivers the fruit to one of their 140 distribution centers. There goods are transferred to the Postal Service or a private courier for delivery just *before* the fruit ripens.

Fruitcakes, Plum Puddings, Jams, Jellies, Candy & Other Confections

Because these sweet-dream foods are full of sugar, rum, spices and other preservatives used since the Middle Ages, they seldom pose health problems. They are shipped at room temperature, and about the only thing you should be concerned with is damage to the packaging — dents, cracks, or breakage (especially of glass, ceramic or crockery containers).

The one possible health hazard in the dessert category is cheesecake. Made with a delicate mix of fresh cream cheese, it must stay cold to avoid spoilage. Therefore venders take no chances. Cheesecake is shipped frozen solid. While some ship it only in the winter, others use overnight delivery services all year to assure a safe product.

Following these safety tips, you can be sure your mail-order food is as good as it looked in the catalogue . . . and as good for you.

—Hedy Ohringer

Free For the Asking

1. THE SAFE FOOD BOOK: YOUR KITCHEN GUIDE is a comprehensive, 32-page booklet on the safe handling of meat and poultry.
2. TALKING ABOUT TURKEY is an easy-to-use, 20-page booklet that tells all about buying, storing, and cooking turkeys safely.
3. MEAT AND POULTRY LABELS WRAP IT UP is a short leaflet that graphically demonstrates how to find handling information on a label. Order items 1-3 from:

USDA-FSIS
Public Awareness Office
Room 1165-South Bldg.
Washington, D.C. 20250.

4. HOW TO GO ON A SHOPPING SPREE is a fold-out leaflet on mail ordering. Order from:

United States Postal Service
475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260-6355.

5. MAKE KNOWLEDGE YOUR PARTNER IN MAIL ORDER SHIPPING is a 12-page booklet with tips on ordering by mail and sources of help. Order by sending a self-addressed, stamped envelope to:

Consumer Services, Direct
Marketing Association
6 E. 43rd Street
New York, N.Y. 10017.

Something Wrong?

Bad food is bigger trouble than if your mail-order suit, tree saw or widget arrives in pieces. Spoiled food can make you sick. So **don't even taste suspect food!** First refrigerate it — if possible in the original container. Health officials may want to examine the sample to see if a product recall is necessary.

If it's a meat or poultry product, call USDA's toll-free Meat and Poultry Hotline. The number is **800-535-4555** (or 447-3333 in the Washington, D.C. metropolitan area). The hotline is staffed weekdays, 10 a.m. to 4 p.m.,

Eastern Time. (These numbers are also accessible by Telecommunications Devices for the Deaf, TDDs.)

If you have a safety problem with a food other than meat or poultry, call the nearest U.S. Food and Drug Administration office. Check the phone book under U.S. Government, Department of Health and Human Services.

Think you're a victim of **fraud**? Either the quantity or quality is not at all what you paid for? These groups may be able to help:

- **Mail Order Action Line**, Direct Marketing Association, 6 E. 43rd St., New York, N.Y. 10017. Explain your

problem in a short letter, giving details on dates, costs, etc.

- **Inspection Service**, U.S. Postal Service. Contact either your local postmaster, or the Chief Postal Inspector, U.S. Postal Service, Washington, D.C. 20260-2161.
- State and local **consumer protection offices** or the **Better Business Bureau** in your area or near the mail-order outfit can be helpful.

If you can't resolve the problem, write the publication that carried the ad for this group. No publisher wants to run fraudulent advertising.

Food Safety

Mouse Control

The small, gray creature who flashes by in the kitchen of a cold winter's eve is probably a house mouse.

Mice often invade around the first frost, because outside food is scarce then and the temperature too low for them.

Known to science as *Mus musculus*, which originally meant "little thief," the house mouse can trace its family tree back to the Russian steppes, where its ancestors busily devoured weed seed. House mice came to our shores with the Virginia colonists.

"Little thief" still describes the mouse well, because mice do rob their human hosts of billions of dollars worth of food each year. This they do not so much by eating the food — mice eat very little — as by gnawing into supplies and causing spillage and waste.

Mice also contaminate food. They track all kinds of undesirable microbes in on their feet and bodies. Their excretions spread disease (see "Diseases Mice Carry").

And mice bring other, even smaller disease-carriers into your home too. These are the mice-borne lice, mites, ticks and fleas. Medical historians tell us that because rodent fleas carried the "Black Death" plague in the Middle Ages, mice and rats have indirectly caused untold human suffering.

Is there a positive side to the mouse's tale? Actually, field mice — a different species — do eat some crop-destroying insects. And the purebred aristocrats of the mouse world — white laboratory mice — have made extensive personal sacrifices for research.

Still, a mouse in the house is more than just inconvenient or unsettling. You need to keep mice away from your food and family to avoid contagion.

How can you do this? Some basic knowledge on the physical prowess of mice — which explains how they get in everywhere, plus some information on how they make themselves at home in your house should help you stay in control.

Mighty Mouse

Physically, the average house mouse, a mere 6-7 inches long and weighing less than an ounce, is powerful indeed.

You probably didn't know that a mouse can:

- Squeeze through an opening the size of a dime. Baby mice, naturally, can slip through even smaller openings.
- Perform like an Olympic athlete! A mouse can jump 12 inches, and fall 8 feet and land on its toes without injury. It can swim, run up steep vertical surfaces and over cables and wires. It can even run upside down along surfaces if it can get a foothold.
- Use its whiskers, slightly longer guard hairs on its body and its fine sense of taste, touch and hearing to quickly familiarize itself with new surroundings. (The "blind mice" in the nursery rhyme have some basis in fact, as mice have poor eyesight and may be color-blind.)
- Survive fairly well without water if there is enough moisture in its food.
- Survive even in commercial food freezers if it has



The Metal "Catch" Box. Inflamed by curiosity, our mouse model (a finger puppet) approaches the tunnel-opening. A real mouse, stepping into the tunnel, would be thrown into the catch-chamber.

nesting material to protect it from the cold.

- Reproduce in litters of 7-10 young at 35 days of life. The average female, who lives about a year, produces 100 young. This is why you don't want to let a mouse colony establish itself in your house! It's much easier to halt the problem early on.

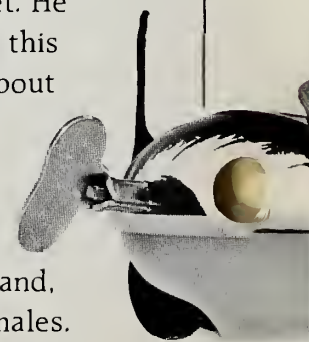
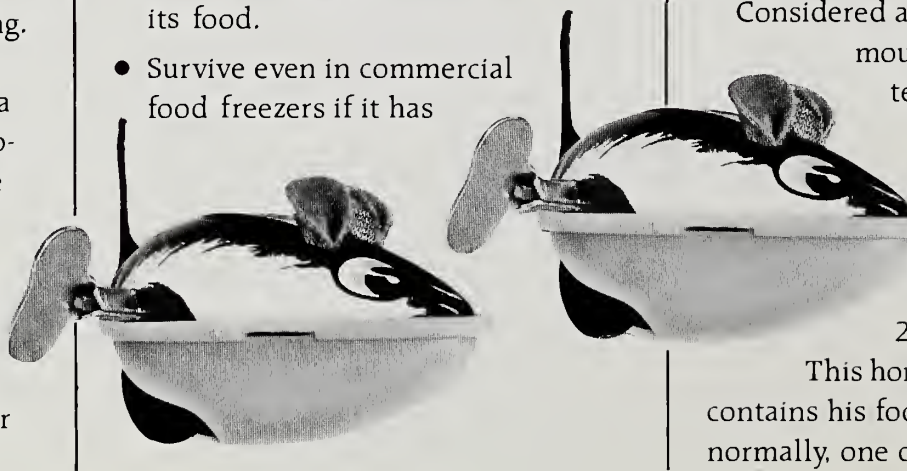
The Mouse "House Guest"

What is life like for the mouse (more likely mice) who's just moved into your place? The house mouse normally nests in walls, cabinets, furniture, stacked boxes, rag piles or stored food.

Menu? Not fussy in its tastes, the mouse will nibble cereals, grain, nuts, seeds, lard, butter, meat, bacon, pastry, candy. And when very hungry, mice have been known to eat almost anything . . . including gloves, shoes and glue. Normally more active at night, mice do their heaviest feeding at dusk and dawn.

Considered a loner, the male house mouse stakes out a small territory of 10 to 30 square feet. He patrols this area about once every 24 hours.

This home base contains his food supply, and, normally, one or more females.





Mouse Trap Ahead. Again, our model mouse, making the daily round of his territory, sights a standard mouse-trap. The trap is correctly placed so that if he runs across it, he will be caught.

He will fight to keep other adult males out of his territory, and, in mouse populations, there are definite social structures with the fiercest fighters reigning as "king mice."

Because of their poor vision and reliance on touch, mice prefer narrow spaces which allow them to "feel" their location within their territory. Hence, you see them scuttle along floorboards and behind furniture. They rarely venture out into open areas if they can avoid it.

The only drive that over-rides a mouse's concern with safety is curiosity. Mice will investigate, as they make their daily rounds, any new item laid in their path. This curiosity explains why the old-fashioned mouse trap (baited or unbaited) and the new spring-activated metal "catch" boxes

(with a tiny tunnel mice like to explore) are so effective. Winding the spring "sets" the trap-door in the floor of the tunnel. The mouse noses in, curious, and when its weight hits the trap-door device, it is catapulted into a side holding chamber (see photo).

How to Outsmart a Mouse

1. Determine the extent of the problem. If you've spotted one mouse, probably you have several. Check along the mouse's runways — behind canisters, for instance, or behind the stove — for droppings. Heavy droppings (mouse droppings are smooth with pointed ends) indicate more mice. Evidence of quite a few mice may mean you'll want to call an exterminator to correct the situation quickly. But if you see only a few droppings, you should . . .

2. Thoroughly clean the kitchen, and mouse-proof all food. Take any food up off the floor. Sweep and scrub the kitchen and pantry floor. Make sure no crumbs or food scraps are available anywhere — table, countertops or sink. Put pet food away between feedings.

Put as much food as possible in the refrigerator. Mice gnaw through boxes, so place dry, paper-packaged foods in metal canisters or a secure bread box. You can also transfer these foods (rice, beans, flour, pasta, mixes) to sealed glass or metal jars.

and joint pains, is spread in the urine of infected mice. Severe cases are complicated by kidney damage, jaundice and anemia.

Listeriosis is a flu-like bacterial food poisoning that can lead to coma and death.

Other diseases spread by mice are:

Murine typhus fever (carried by mouse fleas); **Plague** (flea-borne) — the "Black Death"; **Rickettsialpox** (mite-borne) — mild, resembles chickenpox; and **Lymphocytic Choriomeningitis** (caused by the LCM virus) — may resemble flu, but severe cases can cause brain inflammation.

Clean up possible nesting places — rag bags, a collection of old brooms and mops, etc.

3. Eliminate garbage as a food source. Use the disposal, if you have one, for wet foods. Place drier garbage, food wrappers and cartons inside plastic sacks in a metal can. The can should have a tight-fitting lid, preferably one with metal clasps. Put the can some distance from the house and raise it on bricks — this keeps mice (or rats) from gnawing through the bottom. Make sure the can is emptied once a week, and that you keep the can and the area around it clean.

4. Set traps. For most households, the standard mouse-trap is probably the best and safest control. Place traps at frequent intervals right next to the wall or cabinet top in the mouse's runway. Place the trap perpendicular to the wall so that it snaps down as the mouse runs across (see photo). Keep toddlers and pets away from the traps.

Good baits are bacon, nuts, hard sugar candy, gum drops and peanut butter. Check your traps every morning — both to dispose of mice (use rubber gloves) and freshen bait. Mice don't like "yucky" bait.

The metal "catch" boxes also work well. They can be wound to catch up to 18 or 20 mice without re-setting. For best results, put the box in a dark area and throw an old piece of canvas or burlap over it. Make sure the seductive tunnel opening mice like is not obscured.

Poison grain or tablets are probably too dangerous for use around pets and young children. And, for any home, the after-effects of poisons can be hard

to endure. Mice typically find some inaccessible place to die, and the odor can be overwhelming. With traps, you know how many you've caught, and you can dispose of the mouse immediately.

—Mary Ann Parmley

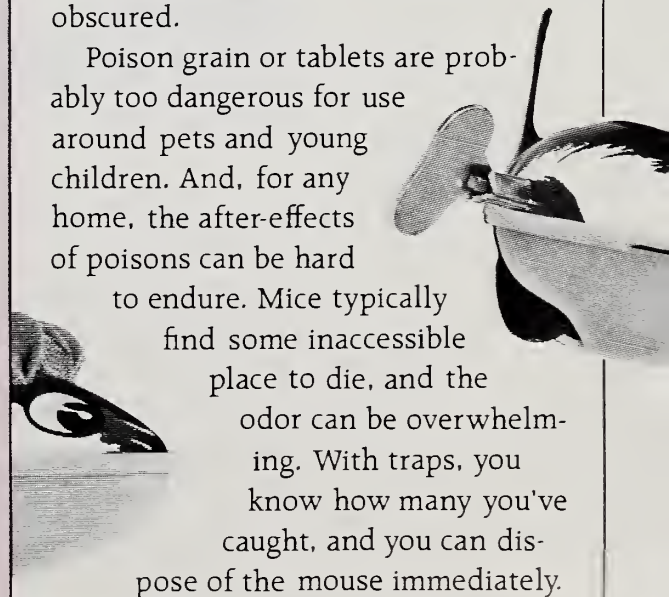
Diseases Mice Carry

Salmonellosis, which causes diarrhea, fever & vomiting, can spread from bacteria in mouse droppings to human food.

Toxoplasmosis is a parasitic disease that can cause severe birth defects. Often spread by cats, it is also carried in mouse droppings.

Trichinosis, a parasitic muscle disease, is carried in the droppings of mice who eat raw or poorly cooked, infected pork scraps.

Leptospirosis, a mild to severe infection causing fever, headache, muscle



CAN



YOU SOLVE...

The Case of the Chicken Casserole?

Sadly, accounts of food poisoning have become part of the daily news. So to help consumers minimize food care mistakes at home, FOOD NEWS is starting this case study series to explain how food poisoning works. The villain this time? **Clostridium perfringens**, the "buffet" germ.

Scene of the "Crime."

Jim Simon thought he had it whipped. Armed with his Texas mother's recipe for "King Ranch Chicken Casserole," and fresh from the store with tortillas, jalapeño peppers, sour cream and boned chicken breasts, he sensed a culinary triumph in the offing! His adult ed cooking teacher would be impressed. Everyone in class would be impressed.

Really, his entire New Year's brunch menu was outstanding. Alexis, his girlfriend, was bringing guacamole salad and white chocolate mousse.

Preparations? Jim worked through Johnny Carson's monologue that night baking the casserole so all he'd have to do was warm it up for the party.

His guests weren't due until 2:30 on New Year's day, but, as a nervous new party-giver, he got up at 8:30 that morning to give himself plenty of time.

He reheated the covered casserole at 375° for about 45 minutes. Then he put it out on his new designer heating tray, setting the dial for 110° F.

Then he did the "fun" things — putting out crackers and cheese, arranging the flowers. He even folded his new gray linen napkins into swans. That had been their final lesson in class.

Alexis arrived promptly at 1:30 with her offerings, and everything went smoothly from there. From the first bite, when the teacher sighed rapturously, the brunch was a great success. As dusk ended the day, the group toasted the New Year with Mexican coffee on Jim's balcony.

BUT . . . around 11:30, as Jim was tidying up, his troubles began. He was seized with abdominal cramps which led quickly to severe diarrhea. Alas, he was not the only one. The next morning several guests called to report similar symptoms. Perfringens had struck!

Where did Jim go wrong?

Was his mistake in

A. Failing to reheat the casserole thoroughly the morning of the party?
or

B. Cooking the casserole properly, but leaving it on the heating tray at the wrong temperature for a dangerously long period?

The Answer, of course, is "B." We'll assume here, that the chicken breasts picked up some perfringens cells during cutting or packaging. Perfringens bacteria is widely found in the digestive tracts of chickens.

While any active perfringens cells were killed during the two bakings — the night before and that morning, some heat-resistant perfringens spore cells apparently remained.

These tough spore cells can germinate and become active again at 110° F. In fact, that's about their favorite temperature.

The time elapsed from roughly 10 that morning to serving time, between 2:30 and 4:30 that afternoon, allowed the perfringens to multiply enough to cause illness.

Another contributing factor is that perfringens thrives in low-oxygen settings, and the inside of a dense meat-and-starch casserole is just that.

How can you keep perfringens away from your party? Watch your holding time on buffet foods. Serve hot foods hot (140° F), or cold — straight out of the refrigerator (40° F). Don't leave any food in a chafing dish, on a heating tray or at room temperature for more than 2 hours.

How would you know if you had perfringens? You wouldn't know for sure unless your doctor did culture tests. But an illness starting with dramatic stomach cramps and diarrhea some 8 to 15 hours after a buffet meal could well be caused by the perfringens bacteria.

Health and Nutrition

The Dallas Food Editors Conference

— Marjorie Davidson

It's five minutes before your deadline and you're having trouble checking an allegation made by an industry official or a special interest group. You know someone in government, but that person's not available. You need to get more facts fast, but where do you go?

Nearly 50 journalists and industry representatives got the answers to this question and more during a two-day conference jointly sponsored by the U.S. Department of Agriculture and the U.S. Food and Drug Administration. Entitled, "Food Safety and Nutrition: Changes and Challenges," the conference, held June 27 and 28 in Dallas, Tex., was the first in a series of five such conferences held this summer and fall.

Top officials from USDA and FDA were on hand to discuss food safety issues that are currently making the headlines, and to alert journalists on topics that will soon be debated in the public policy arena.

Highlights of the conference included presentations on the dietary guidelines issued jointly by the Departments of Agriculture and Health and Human Services, food inspection procedures, and reports of recent research developments in food technology. Concluding the conference was a special talk on "How to Avoid the Bureaucratic Shuffle," which gave tips on how to cover Washington and who to call on a deadline. Names and telephone numbers of USDA and FDA regional office contacts were also provided for help in getting information on the local level.

Participants left the conference with a heightened awareness of the issues confronting the food industry, its regulators, and the consumer. They

also left knowing how to find more information on these developments when necessary.

WHAT THE EDITORS SAID

What's new in diet and health? San Angelans still love their junk food, but at the same time they are becoming more concerned about diet and health. So we are broadening our food section with nutrition news and with special features on diet and disease. I need to know about new products and new developments in the field of food and health.

Joyce Ames, Food Editor, SAN ANGELO STANDARD-TIMES, San Angelo, Texas.

Nutrition questions. The people in Stillwater are representative of the country as a whole. They are very busy people who work but who are still trying to do well by their families. They are interested in quick meals that are nutritional. I came to the conference to learn how to better evaluate the nutrition information that comes across my desk. I want to know the right questions to ask.

Gail McKissick, Food Editor and Staff Writer, STILLWATER NEWS PRESS, Stillwater, Oklahoma.

Food safety, labeling concerns. My readers are concerned that the food they buy in the supermarket is safe. They want to know the content of the

food they eat. I came because I wanted to broaden the food safety information in our food section and to learn more about the labeling of food products.

Teresa Sheppard, Lifestyle Editor, WACO TRIBUNE HERALD, Waco, Texas.



USDA staffer, Marjorie Davidson (l.) interviews Gail McKissick, Food Editor of the STILLWATER NEWS PRESS, Stillwater, Okla.

Food irradiation? We have an irradiation plant in Albuquerque, so I came to learn about the future and safety of irradiation of food. There is also a considerable amount of agricultural business in the Albuquerque area, and I wanted to get more information about the Farm Bill being considered by Congress this year.

Talli Nauman, Farm/Ranch Editor, ALBUQUERQUE JOURNAL, Albuquerque, New Mexico.

over 186,000 physicians. Our readers are interested in new food labeling changes so they can better advise their patients. They also wish to clarify the advisability of using vitamin supplements such as calcium and potassium. Finding out what new regulatory plans or nutritional guidance may be forthcoming in these areas is the reason why I'm here.

Carol Bullock, Staff Reporter, MEDICAL TRIBUNE, New York City.

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